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# ECE 11

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## ABSTRACT BOOK

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## A new multiarmed asteroid from the Lower Devonian of Morocco

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Deviation from the classical pentamerous symmetry through the possession of supernumerary arms and associated ambulacra is relatively common in extant Asterozoa: five families (out of 34) are exclusively multiarmed, and nine include both multiarmed and five-armed taxa (Hotchkiss, 2000). In contrast, Palaeozoic multiarmed asteroids are rare, with only 11 occurrences reported so far (Herringshaw *et al.*, 2007a). Their earliest occurrences include *Lepidaster grayi* from the Wenlock of England, an undescribed starfish from the Ludlow of Australia (Herringshaw *et al.*, 2007a), and two Emsian taxa from the Hunsrück Shale of Germany (*Helianthaster rhenanus* and *Palaeosolaster gregoryi*; Blake, 2009).

Here, we report a new occurrence of multiarmed asteroid, based on about half of the oral surface of a single specimen from the Emsian of the Erfoud area (eastern Anti-Atlas, Morocco). Although incomplete and weathered, the morphology of this specimen, which originally possessed approximately 20 elongate arms, departs from that of coeval forms from the Emsian of Germany. The new Moroccan asteroid is tentatively assigned to the family Lepidasteridae, which includes the two multiarmed genera *Lepidaster* (Silurian of England) and *Michiganaster* (Middle Devonian of Michigan), as well as the five-armed *Lepidactis* (Silurian of England and, possibly, Middle Ordovician of western France) (Herringshaw *et al.*, 2007a, 2007b; Blake *et al.*, 2016).

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